On page 1, please replace the section heading "Background of the Invention" with the following rewritten section heading:

"Description of Related Art"

On page 2, the fourth complete paragraph has been amended as follows:

Some theories on the causes for the deposition of the fibrous products on the inside surface of the furnace of tubular reactor may be considered. For example, according to the first theory, the metal catalyst source is decomposed to form the molten metal, which is then deposited on the inside surface of the furnace of tubular reactor and becomes nuclei, on which the fibrous products are formed by a so-called "growth on substrates". According to the second theory, the metal catalyst source is deposited and then decomposed on the inside surface of the furnace of tubular reactor to form the metal as nuclei, on which the fibrous products are formed by the growth on substrates. According to the third theory, the carbon fibers produced in a vapor phase in the furnace of tubular reactor are deposited on the inside surface of the furnace of tubular reactor and then grown up longitudinally and/or radially. According to the fourth theory, the above-mentioned theories are combined.

On page 5, please replace the section heading "Description of the Invention" with the following rewritten section heading:

"Summary of the Invention"

On page 7, the section heading "Best Modes for Practicing the Invention" has been amended as follows:

"Detailed Description of the Preferred Embodiments"

The paragraph bridging pages 8 and 9 has been amended as follows:

In Fig. 1, 1 represents an apparatus for production of vapor-phase growth carbon fibers, 2 a feedstock vessel containing a mixture of the carbon source and the metal catalyst source such as an organic metal compound, 3 a pump for removing the mixture from the vessel and controlling the amount of the mixture, 4 a preheater for preheating the mixture to a predetermined temperature, 5 a vaporizer for further heating the preheated mixture to vaporize the mixture to thereby prepare a gas having the same composition as that of the mixture, 6 a first mass-flow controller for controlling the amount of a carrier gas allowed to pass together with the vaporized mixture, 7 a flow meter for determining the amount of a cooling gas such as air or nitrogen gas to be supplied to a cooling jacket mounted on a nozzle for supplying the feedstock, 8 a second mass-flow controller for determining the amount of the carrier gas, 9 a heat tube for maintaining the heated gaseous mixture at the predetermined temperature, 10 a cylindrical feedstock-supplying nozzle for introducing the gaseous mixture into a vertical furnace of tubular reactor at the top thereof, 11 the vertical furnace of tubular reactor, 12 a cooling jacket surrounding the feedstock-supplying nozzle, 13 a cooling gas inlet, 13A a cooling gas outlet for discharging the cooling gas supplied to cooling jacket 12, 14 a carrier gas-supplying nozzle, 14A a gas-flow rectifying means mounted on the end of the carrier gas-supplying nozzle, 15 is an electric heater, 18 the end opening of feedstock-supplying nozzle 10, 19 a pipe connecting the first mass-flow controller 6 to preheater 4, 20 a pipe, 21 a feedstock-supplying pipe for sending the mixture from pump 3 to vaporizer 5, 22 a pipe for sending the cooling gas to cooling jacket 12, 23 a pipe for sending the carrier gas to the gas-flow rectifying means 14A, 31 a discharge pipe, 31A an opening of the discharge pipe, 32 a driving gas-ejecting nozzle, 33 an ejector, 40 a guide gas-supplying means, 41 a guide gas uniform supply vessel in which the guide gas is contained, 42 a guide gas supply pipe, and 43 a part for rectifying and regulating the flow of the guide gas.